

## Part 2--Remarks

This is a Response to the Office Action mailed April 10, 2002. In that Office Action, claims 1-4, 11, 12, and 27-29 were rejected under 35 USC 103(a) as being unpatentable over Lee et al (U.S. patent 5,281,305) in view of alleged "common knowledge in the art;" claim 5 was noted as allowable; claims 6-10 were noted as allowable if rewritten in independent form; and the specification was apparently objected to for using terms whose alleged meaning is inconsistent or "repugnant" to the invention.

Reconsideration is respectfully requested.

### Allowable Subject Matter

Claim 5 has been noted as allowable. Although not stated in the April 10 office action, it is presumed that claim 5 has not been allowed because of the perceived objection/rejection to the specification. If this is not the case, clarification of the record is requested.

Claims 6-10 already depend on claim 5. The statement in the April 10 office action that claims 6-10 would be allowable if amended to depend on an allowable base claim is therefore not understood. It is presumed that claims 6-10 are also allowable without further amendment, for the same reason as claim 5. If this is not the case, clarification of the record is requested.

### Specification Objection

The April 10 Office Action does not specifically reject the application under 35 USC 112, thereby raising a question as to the legal basis of the "objection." The reason for the "objection" appears to be directed to the specification, not the claims. It therefore appears that the "objection" may be based on an asserted lack of written description or a lack of enablement under Section 112. On the other hand, the legal citation for the "objection" refers to the second paragraph of Section 112 and a 55--year-old legal case, both of which relate to a lack of clarity in the claims. If this authority is the support for the "objection," the claims should have been rejected for a lack of clarity, which they were not.

The failure to specifically define the basis for the “objection” makes the Office Action deficient. Consequently, any response thereto must be based on conjecture or assumption. If the “objection” is continued in a future office action, that office action must not be final to allow a sufficient opportunity to respond. Moreover, the basis for any future “objection” should be specifically stated in a manner that can be understood. Nevertheless and as set forth below, the specification is not objectionable.

As stated in the Amendment and Response filed January 23, 2002, the words “graded index of refraction” do not appear in the claims. The claims have not been rejected on the basis of a lack of clarity. A claim clarity objection or rejection should not apply because the allegedly objectionable term is not recited within those claims.

The April 10 Office Action alleges that a graded index of refraction device requires “continuously varying (the index of refraction) within the same material, or within layers of refraction of different materials fused together.” The April 10 Office Action asserts that the specification is inconsistent with this meaning.

The specification is not inconsistent. The specification describes progressive variations in the refractive index. A continuous variation is simply larger series of small progressive variations, compared a smaller series of larger progressive variations. There is nothing in the specification stating that the materials are not fused together.

The legal authority allegedly supporting the “objection” is simply not consistent with the current state of the law. The April 10 Office Action states, at page 5:

While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947)

Clearly, this citation does not reflect the current state of the law. Instead, the current state of the law is directly contrary. Indeed, the law permits definitions of claim terms which are inconsistent or contrary to one or more of their ordinary meanings:

It is a well-established axiom in patent law that a patentee is free to be his or her own lexicographer, and **thus may use terms in a manner contrary to or inconsistent with one or more of their ordinary meanings.** (Emphasis added) *Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1563; 15 USPQ2d 1039, 1043 (Fed. Cir. 1990):

It is well-established that **a patentee is free to use terms in a manner inconsistent with their ordinary meaning** as long as the special definition is apparent from the specification or prosecution history. (Emphasis added) *Vitronics Corp. v. Conceptron Inc.*, 90 F.3d at 1582-83; 39 USPQ2d 1573, 1573, (Fed. Cir. 1996).

This well-established concept of patent law has been recognized in many other contemporary cases, including *Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 F.3d 1575, 1578; 38 USPQ2d 1126, 1129 (Fed. Cir. 1996), and *Markman v. Westview Instruments Inc.*, 52 F.3d 967, 979; 34 USPQ2d 1321, 1330 (Fed. Cir. 1995).

Thus, even if the specification uses terms which are not entirely consistent with their ordinary meaning, such inconsistency is acceptable under the law. As noted above, the specification in this particular case is not inconsistent with the ordinary meanings. In any event, since the law specifically approves of a specification description which is inconsistent with the normal meaning, there is no legitimate basis for the “objection” stated in the April 10 Office Action, and the “objection” should be withdrawn.

#### Obviousness Rejection

The basis for rejecting claims 1-4, 11, 12 and 27-29 as obvious is the Lee patent in combination with certain alleged “common knowledge in the art.” The alleged common knowledge is “that in a typical waveguide structure the index of refraction of a core is greater than the index of refraction of the cladding material surrounding the core.”

The April 10 Office Action fails to support the alleged common knowledge of the proposition that the core in a typical waveguide structure has a greater index of refraction than the cladding. The unsupported assertion of “common knowledge” is insufficient to establish a prima facie case of obviousness.

Moreover, the evidence of record clearly demonstrates that the core of a typical waveguide structure does not commonly have a greater index of refraction than the cladding. The Lee patent describes a core of a typical waveguide structure does not have a greater index of refraction than its cladding. The core in Lee has the same or “nearly equal” index of refraction as the cladding. This point was discussed in the Amendment and Response filed January 23, 2002, at page 12, and is described in Lee at column 3, line 66 to column 4, line 3.

Not only is the alleged “common knowledge” not such as shown by Lee, there is no basis in Lee itself for ignoring its plain teaching and substituting the alleged “common knowledge.” The law is clear that a prima facie obviousness rejection must contain within the rejecting prior art, a teaching or suggestion for combining the rejecting prior art. Lee itself cannot be the basis for the combination its disclosure does not suggest substituting graded index of refraction materials for the equal index of refraction materials disclosed. The alleged “common knowledge” is an insufficient basis for such a substitution because there is no evidence to support the proposition that the “common knowledge” information was so universally accepted that it would always be applied and used. Indeed, the plain teaching of Lee shows otherwise.

Lastly, the combination of Lee and the alleged “common knowledge” is not sufficient to reject claim 1 and its dependent claims. Claim 1 calls for two gradations: one between the dielectric material and the refractive layer, and the other between the refractive layer and the core. Lee describes different layers with equal refractive indices, surrounded by dielectric material 10 (as characterized in the April 10 Office Action). The alleged common knowledge is that the cladding surrounding a core should have a lesser index of refraction. Combining these two teachings results in either (a) the dielectric material having a lesser index of refraction than the multiple equal index of refraction materials within the dielectric material, or (b) one of the refractive materials having a different index of refraction relative to the other refractive material, without regard to (i) which material was the

core and which was the refractive layer and without regard to (ii) the relative refractive index of the dielectric material.

Stated differently, even if the obviousness rejection was legitimate, the most it shows as obvious is that one material has a lesser index of refraction than the other material. Since claim 1 and its dependent claims require three materials with two different relative indices of refraction between the three materials, the combination of Lee and the alleged "common knowledge" simply does not reach the scope of the pending claims.

It is therefore respectfully requested that the obviousness rejection be withdrawn for one or all of the reasons that (1) there is no support for the alleged prior art status of the "common knowledge," (2) the record itself (Lee) conclusively demonstrates that the alleged "common knowledge" is in fact not common or universally accepted and applied, (3) there is no legitimate basis in the rejecting prior art to substitute the equal index of refraction information in Lee with directly contrary information, and (4) the rejecting art, even if legitimately combined, is insufficient to reach the scope of the pending claims.

There being no legitimate basis to "object" to the specification or to reject the pending claims that obvious based on Lee and alleged "common knowledge," this application is believed to be in allowable condition. Such action is respectfully requested. If the Examiner disagrees, the applicant requests the opportunity for a personal telephone interview to discuss this case.

Respectfully submitted,

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